AMENDMENT TO THE CLAIMS:

The following claim set replaces all prior versions, and listings, of claims in the application:

1. (Currently Amended) Process for preparing cyclohexanone oxime which comprises:
   (a) feeding organic solvent into [[in]] a cyclohexanone oxime synthesis zone at a feeding level for organic solvent, and countercurrently contacting an aqueous medium which comprises hydroxylammonium with an organic medium which comprises cyclohexanone;
   (b) reacting said hydroxylammonium with said cyclohexanone to form cyclohexanone oxime;
   (c) distilling an organic solution comprising cyclohexanone oxime, cyclohexanone and the organic solvent to obtain (i) a first product comprising organic solvent, (ii) a second product comprising cyclohexanone oxime and cyclohexanone at a weight ratio of cyclohexanone oxime/cyclohexanone of greater than 0.3, and (iii) a third product comprising cyclohexanone oxime; and
   (d) feeding the second product into said cyclohexanone oxime synthesis zone at a level downstream of the feeding level for organic solvent in relation to a flow direction the organic medium.

2. (Cancelled)

3. (Previously Presented) Process according to claim 1, wherein the process further comprises:
   feeding cyclohexanone into the cyclohexanone oxime synthesis zone at a feeding level for cyclohexanone, said feeding level for cyclohexanone being downstream of the feeding level for organic solvent in relation to the flow direction of the organic medium; and

feeding said second product into the cyclohexanone oxime synthesis zone at said feeding level for cyclohexanone or downstream of the feeding level for cyclohexanone in relation to the flow direction of the organic medium.

4. (Previously Presented) Process according to claim 1, wherein the process further comprises discharging an organic product solution which comprises cyclohexanone oxime and organic solvent from said cyclohexanone oxime synthesis zone at a discharge level for organic product solution, said discharge level for organic product solution being downstream of the feeding level for cyclohexanone in relation to the flow direction of the organic medium.

5. (Previously Presented) Process according to claim 4, wherein the process further comprises feeding the second product upstream of the discharge level for organic product solution in relation to the flow direction of the organic medium.

6. (Previously Presented) Process according to claim 4, wherein the aqueous medium and organic medium present between the feeding level for cyclohexanone and the discharge level for organic product solution have a sum volume of V, and wherein the process comprises feeding the second product into the cyclohexanone oxime synthesis zone at a level such that the aqueous medium and the organic medium present between the feeding level for cyclohexanone and the level at which the second product is fed into cyclohexanone oxime synthesis zone have a sum volume of at least V/10.

7. (Previously Presented) Process according to claim 4, wherein the process further comprises:

countercurrently contacting the aqueous medium and the organic medium present between the feeding level for cyclohexanone and the discharge level for organic product solution in a column or in series-connected

columns, said column or said series-connected columns having a total column length L; and

feeding the second product into said column or series-connected columns at a distance of at least L/10 measured from said feeding level for cyclohexanone.

8. (Previously Presented) Process according to claim 4, wherein the process further comprises:

countercurrently contacting the aqueous medium and the organic medium present between the feeding level for cyclohexanone and the discharge level for organic product solution in a number of series-connected mixer-settlers; and

feeding the second product into the second or higher-numbered mixer-settler counted from the feeding level for cyclohexanone.

9. (Previously Presented) Process according to claim 4, wherein said organic product solution is said organic solution.

10. (Previously Presented) Process according to claim 1, wherein the process comprises feeding the second product into the cyclohexanone oxime synthesis zone such that the sum concentration of cyclohexanone and cyclohexanone oxime in the aqueous medium leaving the cyclohexanone oxime synthesis zone is less than 20,000 ppm (2 wt. %).

11. (Presently Presented) Process according to claim 2, wherein said feeding of organic solvent into the cyclohexanone oxime synthesis zone at the feeding level for organic solvent is effected by feeding the first product into the cyclohexanone oxime synthesis zone at the feeding level for organic solvent.

12. (Presently Presented) Process according to claim 1, wherein said second product contains cyclohexanone oxime.

13. (Cancelled)

14. (Presently Presented) Process according to claim 1, wherein the process comprises distilling the organic solution to obtain the first product as a distillate; distilling the remaining bottom product to obtain the second product as a distillate and the third product as a bottom product.

15. (Presently Presented) Process according to claim 1, wherein the process comprises withdrawing said organic solution from the cyclohexanone oxime synthesis zone.

16. (Presently Presented) Process according to claim 1, wherein the ratio $f_n/f_c < 1.00$, more preferably < 0.99, more preferably less than 0.98, wherein f_n represents the molar quantity of hydroxylammonium fed to the cyclohexanone oxime synthesis zone per unit of time (in mol/s), and f_c represents the molar quantity of cyclohexanone fed to the cyclohexanone oxime synthesis zone per unit of time (in mol/s).

17. (Presently Presented) Process according to claim 1, wherein the organic solvent is selected from the group consisting of benzene, toluene, xylene, methylcyclopentane, cyclohexane and mixtures thereof.

18. (Original) Process according to claim 17, wherein the organic solvent is toluene.

19. (Presently Presented) Process according to claim 1, wherein the aqueous medium is an acidic medium buffered with phosphate.

20. (Previously Presented) Process according to claim 1, wherein the sum concentration of cyclohexanone and cyclohexanone oxime in the aqueous medium

leaving the cyclohexanone oxime synthesis zone is less than 5,000 ppm (0.5 wt.%).

21. (Previously Presented) Process according to claim 1, wherein the sum concentration of cyclohexanone and cyclohexanone oxime in the aqueous medium leaving the cyclohexanone oxime synthesis zone is less than 1,000 ppm (0.1 wt.%).

22. (Previously Presented) Process according to claim 1, wherein the sum concentration of cyclohexanone and cyclohexanone oxime in the aqueous medium leaving the cyclohexanone oxime synthesis zone is less than 500 ppm (0.05 wt.%).

23. (Previously Presented) Process according to claim 1, wherein the sum concentration of cyclohexanone and cyclohexanone oxime in the aqueous medium leaving the cyclohexanone oxime synthesis zone is less than 200 ppm (0.02 wt.%).

24. (Previously Presented) Process according to claim 1, wherein the weight ratio cyclohexanone oxime/cyclohexanone in the second product is higher than 0.2.

25. (Currently Amended) Process according to claim 1, wherein the weight ratio cyclohexanone oxime/cyclohexanone in the second product is ~~higher than 0.3, in particular higher~~ greater than 0.4~~, more in particular higher than 0.5~~.

26. (New) Process according to claim 1, wherein the weight ratio cyclohexanone oxime/cyclohexanone in the second product is greater than 0.5.

27. (New) Process according to claim 1, wherein the weight ratio cyclohexanone oxime/cyclohexanone in the second product is between about 2.3 to 4.3.